CROP PRODUCTION NEWS

Volume 33, No. 5 July 8, 2011

CROPS

Editor's Comments

By Faye Dokken-Bouchard, PAg, Crops Branch

Warmer weather in the last couple of weeks has significantly advanced crops in the province. In some cases, high daytime temperatures have also brought about some hail and thunderstorms. Hail predisposes crops to further damage by creating wounds for pathogens to enter, and precipitation will create moist conditions favourable for disease development. However, with improved weather, stressed crops still have plenty of time to recover this season. See the Crop Report for the latest on crop development across the province www.agriculture.gov.sk.ca/Crop-Report.

Ministry of Agriculture publications, crop management fact sheets and information on various crop commodities can be found on the Saskatchewan Agriculture website at www.agriculture.gov.sk.ca/crops.

NOTE: Throughout this document, you will see that some publications are in blue font and underlined, indicating links to website information. If you are reading this on your computer screen, click your cursor on the link to take you directly to the website. ✪

Crop Production News is a bi-weekly publication prepared primarily by provincial specialists with the Crops Branch and Regional Services Branch of the Saskatchewan Ministry of Agriculture. It is a compilation of articles related to entomology, plant pathology, weed science, soils and agronomy issues.

Please do not use any of these articles for any other purpose without first asking the author's permission.

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Crop Protection Laboratory Update

By Philip Northover, AAg, Supervisor, Crop Protection Laboratory

With the onset of July, seedling problems generally associated with water have given way to more advanced canola, cereal and lentil submissions.

Abiotic "diseases" (or "disorders" for those pathology purists) have been the problem in about 90 per cent of the samples thus far. Herbicide injury and nutrient deficiencies have been the story of late. Initial examination of the most recent submissions appears to suggest that trend is continuing.

Barley: environmental damage.
Cherry: brown rot (*Monilinia* spp.) and shot hole (*Wilsonomyces carpophilus*).

Insects that were also identified in the past week included: cutworm (*Euxoa* spp.), wireworm (*Ctenicera destructor*) and crane fly larvae (*Tipulidae*).

Dutch Elm Disease samples have trickled in to the lab to date. The onset of warm dry weather should result in the tell-tale flagging symptom (wilted, brown leaves). Test results on the first samples submitted two weeks ago are starting to be read, and two positive samples have been confirmed this week.

Weed submissions have decreased from the previous weeks. The following plants have been identified: meadow bromegrass (*Bromus biebersteinii*), hairy speedwell (*Veronica* L. var *xalapensis*), northern willowherb (*Epilobium ciliatum*), horsetail (Equisetum spp.), poverty sumpweed (*Iva axillaris*) and a sample that, despite our best efforts we were able to identify as a member of the family *Boraginaceae* (Borage family), but no further. ☼

Figure 1: Looking at these pictures of a cherry leaf, you might expect that a leaf with a hole in it is attributed to insect activity—not a bad guess, and in most cases correct. However, "shot hole" ranks as one of the more unusual diseases in the pathology world. It is actually caused by a fungus, and in the process of disease development, it causes perforation of the leaves. The lesion falls out and a distinct "shot hole" appears.
Source: Saskatchewan Agriculture.

Agriculture Knowledge Centre Update

By Brent Flaten, PAg, Integrated Pest Management Specialist

Inquiries during the past week have covered a wide variety of topics, including late in-crop weed control, fallow/unseeded weed control, fungicides and insect control.

In some areas where excess moisture has kept producers off their fields, they are trying to control larger weeds than normal. Herbicide choices and the degree of control can be limited in these situations. Also, we are getting questions on applying Liberty or glyphosate when canola is starting to bolt. Late application on herbicide-tolerant canola can cause significant yield losses. Refer to Clark Brenzil's "Late Application of Herbicides is Risky" article in this edition for more details.

Although larger weeds on unseeded acres are useful in utilizing some of the excess moisture, they can produce a lot of unwanted seed if left to grow to maturity. Most large annual weeds can be controlled by high rates of glyphosate; however, some of the perennial broadleaf weeds may be difficult to control even at these high rates. For more information on specific weeds, contact your local regional crop specialist, the Agriculture Knowledge Centre at 1-866-457-2377, or Clark Brenzil.

Producers and private agronomists continue to send in pictures of various weeds or diseases for identification. In some cases, if the pictures are clear and include both wide-angle and close-up shots, we can identify them. However, the most precise way to have unknown weeds identified is to send them to the Crop Protection Lab at 346 McDonald Street, Regina, SK, S4N 6P6. There is a nominal fee of $10 for this service. You can download, fill out and email a form directly from our website at: www.agriculture.gov.sk.ca/Default.aspx?DN=b993e4cf-60d3-4a6c-b805-63d8517e6554

We are receiving inquiries on fungicides, particularly on leaf diseases in cereals and sclerotinia in canola. To help with scouting and determining when fungicide applications are likely to be economical, refer to various factsheets on our website listed under Crops\Crop Protection\Diseases. It is important to note that even if it's been a while since a rain, heavy dews provide enough moisture for disease to spread inside the crop canopy. Refer to Faye Dokken-Bouchard's "Plant Disease Update" in this edition for more information.

Insect inquiries have included pea aphids and wheat midge. Pea aphids have been showing up at economical thresholds and are being sprayed. For peas, the economical threshold is nine to 12 aphids per sweep or two to three aphids per eight-inch (20 cm) plant tip when peas are flowering and producing young pods.

Wheat midge will likely be emerging within the next week or so. Growing degree day (GDD) information, such as that available on the WeatherFarm or FarmZone websites, is a good tool for approximating when emergence will occur. Remember, these are not exact but will give you a rough idea of when to scout for wheat midge. Refer to Scott Hartley's "Insect Update" article for more information.

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Agriculture Knowledge Centre Update
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Also, there have been inquiries about yellowing crops including canola, cereals and lentils. In some cases, these crops have been in saturated soil conditions and are suffering from water stress. In other cases, the crop leaves were so succulent that they took in the herbicide more quickly than they were able to metabolize it, resulting in a yellow "flash" effect on the crop. With the heat and good growing conditions, the crops have recovered quite quickly. The downside of this heat is more thunderstorms, resulting in some hail damage inquiries.

Soils-related questions continue to revolve around top-dressing. Top-dressing nitrogen can contribute to extra yield if done by the fifth leaf stage of cereals or by the early rosette stage of canola. Top-dressing sulphur on canola can contribute to yield right up to the bolting stage if the soil is sulphur deficient.

Forage inquiries have primarily been on termination of perennial forages. ✿

Agriculture Knowledge Centre

Hours: 8 a.m. to 5 p.m. Monday to Friday
Phone: 1-866-457-2377

Got a question?
E-mail: aginfo@gov.sk.ca
Want to submit your question online?
Go to our http://www.agriculture.gov.sk.ca/ask_saskatchewan_agriculture form page.

Crop Protection Field Day – July 20, 2011

Weed control trials, disease trials, organic research, weed garden, biobed demonstration, pulse disease research, canola disease screening and entomology will be featured at this summer's Crop Development Centre / Agriculture Agri-Food Canada Field Day.

Kernen Research Farm - Highway 41 and Blakely Road, near Saskatoon.

Registration on-site at 8:30 - 9:00 am.

Tours: 9:00 am - 4:00 pm. Lunch: 12:00 pm

Please RSVP to sharon.stevens@usask.ca by July 15th to register for the day ($10.00 registration fee will be collected on the day of the event).

Round Bale Silage can be a Useful Option when Weather is not Conducive to Haying

By Michel Tremblay, PAg, Provincial Specialist, Forage Crops

Hay is the most cost-effective form in which to harvest and store forage, as it has relatively modest requirements for machinery and management. Saskatchewan's usually sunny, warm summers have made hay the main method of storing long fibre forage in the province. Successful haying requires drying the forage from a moisture level of 75 per cent at cutting to below 20 per cent moisture at time of baling. This will ensure safe storage using commonly available baling equipment. The drying rate of cut forage is related to relative humidity and temperature, as well as how much rain occurs between cutting and baling. When conditions are not conducive to rapid dry down of cut forage, the making of bale silage or "haylage" can speed the feed storage process and help reduce dry matter losses due to inclement weather and poor drying conditions.

Silage making involves preserving forage by encouraging the occurrence of natural processes performed by micro-organisms. Bacteria that are active with oxygen present (i.e. aerobic) use energy from forage material to reproduce. If oxygen in the forage is limited or excluded (as when silage is covered or wrapped), all the oxygen in the forage is quickly used up by aerobic bacteria. At that point, anaerobic bacteria take over. They can respire and survive in the absence of oxygen. A by-product of anaerobic bacteria metabolism is lactic acid. As lactic acid levels in the forage increase, the pH of the forage is reduced to a level that inhibits bacterial and fungal growth. At this point, the silage stabilizes and, if oxygen continues to be excluded from the forage, the feed can be safely stored for extended periods, even with relatively high moisture levels.

Bale silage is the product resulting from using long forage that has been baled at elevated moisture levels and allowed to ferment, with a resultant lowering of the pH. Chopped silage is generally harvested and ensiled at 65 per cent moisture. Baling forage at between 45 and 50 per cent moisture will result in the most efficient ensiling, and lowest ending pH. The end pH of chopped silage is usually 4.0 to 4.5. Bale silage is usually between pH 4.7 to 5.8. Baling at elevated moisture levels is unpopular due to the increased weight of the bales. Round bale silage has been made with a forage moisture level as low as 35 per cent; however, fermentation can be minimal and pH reductions less. Fermentation can be minimal when baling occurs at lower moisture levels, but the wet hay will "keep" if minimal oxygen exists in the bales and they are wrapped quickly following baling.

As with all silage making, reducing the initial levels of oxygen in the feed to the lowest possible, allows for the most efficient ensiling. Low initial oxygen levels shorten the time aerobic bacteria are active, thereby reducing the amount of forage dry matter consumed by the bacteria. To reduce bale oxygen levels as much as possible, hard core balers should be used when making round bale silage. Low ground speeds should be used when baling to increase bale density. Regardless of bale density, fermentation takes longer to complete in bale silage than chopped silage and is therefore less efficient.

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Round Bale Silage can be a Useful Option when Weather is not Conducive to Haying
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Forages harvested at earlier stages of maturity will ensile more readily because they have higher sugar levels, thereby accelerating microbial activity. Mature forage is more difficult to bale with high bale density and low oxygen levels. Grasses ensile more readily than legumes because legume forages resist changes in pH more than grasses (they have greater "buffering capacity").

Silage bales are heavy, so handling equipment of adequate capacity should be available. Some balers require modification, or the installation of a manufacturer available "silage kit" to successfully bale high moisture forage for ensiling. Bales should be wrapped or placed in a tube as soon as possible following baling (within five hours) to prevent oxygen from entering the bale and to shorten the period of aerobic microbial activity, particularly when baling at lower moisture levels.

Figure 2: Bales should be encased in plastic as quickly as possible after baling.
Source: Saskatchewan Agriculture.

Silage bales made at lower moisture levels should be fed first, as they will have reduced storage stability compared to bales ensiled at greater moisture levels that have had more complete fermentation. Bales should not be fed until the ensiling process is complete, usually in 12 to 20 days. Bales that are well ensiled with lower ending pH can be stored longer than one season, but they should be wrapped with eight millimetre plastic to create a more durable covering and to prevent oxygen from entering the bale. Once oxygen enters an ensiled bale, spoilage will begin to occur. Four millimetre plastic is adequate if feeding is to occur in the winter following baling.

Bale silage gives the smaller producer – or the producer who usually stores forage as dry hay – an option to save feed quality when drying conditions are unfavourable. No silos or specialized equipment other than a bale wrapper is required. Costs are greater for bale silage because more water is handled during feed storage, and wrapping and purchase of plastic must be factored when calculating costs. The process of ensiling will not improve the forage quality. Feed quality will be the same when it is fed as when it was wrapped, less the dry matter losses during the ensiling process. Special attention to harvest stage and prompt wrapping of hay will improve the efficiency of bale silage production. ✿

Late Application of Herbicides is Risky

By Clark Brenzil, PAg, Provincial Specialist, Weed Control

Weather can sometimes prevent accessing a field to apply herbicide. This can result in the upper limit of application timing being missed, and questions arise about the consequences of late application. The later application limits can vary widely among various chemistries, and late application can have implications ranging from crop injury to increased residues in the harvested grain.

Several studies have shown that herbicide applications made in the early stages of both crop and weed growth provide the most yield benefit and herbicide efficacy. As applications are delayed, continually less yield benefit is derived from the herbicide application. Within three to four weeks of emergence, the weeds have done as much damage to crop yield as they can, and herbicide application will provide no yield benefit over not spraying, and may not be able to control the weed. At this point, the producer is likely wiser to forego late in-crop herbicide applications and apply pre-harvest treatments to manage green weedy growth that will aid harvest operations.

Crop tolerance also declines for most herbicides when applications are made later than label directions. Often this coincides with the start of stem elongation in preparation for flowering. For example, canola producers may assume that, because their canola is herbicide tolerant (HT), it is impervious to injury from the herbicide registered for application to that variety. However, the upper staging limit is established for tolerance as well as residue content in the harvested grain. The tolerance of HT canola for the registered herbicide drops significantly once the canola advances into the reproductive stage. The consequences of late application in canola can be the abortion of flowers as well as symptoms specific to the herbicide.

In glyphosate-tolerant or Clearfield canola varieties, the symptoms are similar and can include stunting of internodes, eruption of branches from nearly all of the leaf axils along the stem and general stress symptoms such as purpling. Symptoms in Liberty Link canola may include paling of leaf tissue in addition to flower abortion and general stress symptoms. These symptoms will be aggravated if applications are made while the plant is also under stress from environmental conditions.

"Pre-harvest Interval" or PHI is a value established for most foliar applied pesticides as a way to minimize the potential for the residue of that pesticide being detectible in the grain at harvest. Under average field conditions for a foliar herbicide application, PHI values between 60 to 80 days are common for herbicides. These values are typically established by testing grain that has had the herbicide applied at the stage that provides the best efficacy and economic benefit. With pesticides that have minimal risk of injury, such as insecticides, fungicides and Group 1 herbicides for broadleaf crops, companies may choose to do additional testing to establish shorter PHIs if the market indicates a need.

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Late Application of Herbicides is Risky
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Adhering to the PHI is becoming more important as foreign buyers of grain routinely test shipments for pesticide residues, and reject shipments that do not meet their standards.

The pros and cons of late herbicide application need to be evaluated on a case-by-case basis to determine if it is providing a benefit to the producer or, in some cases, creating more problems than it solves. ✡

Plant Disease Update

By Faye Dokken-Bouchard, PAg, Provincial Specialist, Plant Disease

Signs and Symptoms of Disease
When scouting crops this season, remember that sometimes you are looking for signs of disease and sometimes you are looking for symptoms of disease (and sometimes you may even see both). **Signs** of disease include structures or products associated with the pathogen (e.g. mould, pycnidia, sclerotia, spores). **Symptoms** are the detectable external and/or internal changes in the plant as a result of infection (e.g. pustules, lesions, discolouration). If you see a pustule filled with spores, you are actually seeing symptoms of disease along with signs of the pathogen itself. If unsure, take a photo, consult an agronomist or send a sample to a diagnostic facility such as the Saskatchewan Agriculture Crop Protection Laboratory in Regina. Remember, in addition to scouting for signs and symptoms of disease, it is equally important to understand the **conditions** that favour disease cycles and to watch the **weather** forecast. With the wet conditions in many areas this season, along with an increase of disease inoculum due to disease pressure last season, we should be on the look-out for plant diseases this summer.

Watch for Signs of *Sclerotinia*
Sclerotinia stem rot prevention begins when canola starts to bloom. It is too late to control the disease once symptoms are observed in the crop. Producers should look for signs of the disease by scouting for the fungal sclerotia and apothecia. It is also important to consider your crop rotation, past disease incidence and crop density. Be sure to note any rainfall in the last two weeks before first flower and rain in the forecast. Moist conditions increase the risk of *Sclerotinia* infection.

Sclerotinia spores must infect the petals in order to cause disease in canola plants. Protecting the crop during flowering is necessary to get the most out of a fungicide application. Apply at between 20 to 50 per cent bloom if disease risk warrants a fungicide. Refer to the *Sclerotinia Risk Assessment Card* to determine disease risk: www.saskcanola.com/media/pdfs/canola_disease_scouting.pdf.

Infection can also take place later in the season through direct fungal growth from sclerotia under the crop canopy in other crops, such as lentils.

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Plant Disease Update
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Note: in lentils, applications are generally ineffective in controlling sclerotinia white mould and botrytis grey mould because these diseases do not develop until the crop canopy is too dense to allow penetration of the fungicide.

Proper Staging for Fusarium Head Blight Control in Wheat

Figure 3: Wheat done flowering
Source: Saskatchewan Agriculture

Several foliar fungicides are registered for suppression of Fusarium Head Blight (FHB) in wheat. Once symptoms of FHB have been observed, it is too late to apply fungicides. The optimal stage for applying a foliar fungicide for FHB is during early flowering (some visible anthers on the head). This assists with protecting vulnerable florets during fertilization. Once the head has emerged from the boot, it will likely be at the proper stage to spray in a few days (depending on weather conditions). The winter wheat head in Figure 3 is past the optimal stage; there are an increased number of anthers and they are bleached and dry.

A fungicide application may be warranted if conditions have been wet and warm at crop heading stage and the forecast is for continued favourable conditions during cereal flowering, and expected yields justify the application costs. Furthermore, the pathogen must be established in a region (determined by incidence or losses due to FHB in the past two years or if *Fusarium graminearum* has been isolated from seed samples at greater than five per cent). Risk increases if planting next to infected residue from the year before or in a field that had wheat in rotation within the last two years.

Watch for Symptoms of Stripe Rust

Rust spores generally overwinter and begin on early-seeded crops in the southern U.S.A. and Mexico, and travel on wind currents to crops farther north as the growing season progresses. Stripe rust of wheat may also survive mild winters on a living host (e.g. winter wheat infected with stripe rust) in Saskatchewan. Based on the low to moderate risk of stripe rust projected by Agriculture and Agri-Food Canada's backward wind trajectory analysis this spring, as well as early reports of the disease appearing in Saskatchewan, producers should be alert for stripe rust in winter wheat spreading to spring wheat crops.

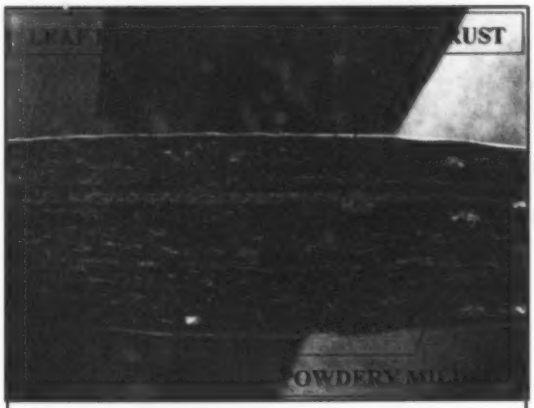

Figure 4: Leaf rust (orange), stripe rust, and powdery mildew on a wheat leaf.
Source: Cereal and Flax Pathology, U of S

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Plant Disease Update
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Normally, stripe rust infection and sporulation require cooler temperatures (optimum 9 to 12C). However, stripe rust is a highly variable pathogen, and new races may be more adapted to conditions on the prairies. Stripe rust was long presumed to have no alternate host, unlike leaf and stem rust which infect meadow rue and barberry, respectively. However, researchers in the U.S.A. recently proved that *Berberis* spp. are alternate hosts for stripe rust (http://apsjournals.apsnet.org/doi/pdf/10.1094/PHYTO-100-5-0432), which may contribute to the pathogen's virulence variability.

Stripe rust will appear as elongated yellow pustules on the leaves and heads (Figures 4 and 5). The yellow-orange colour is actually the stripe rust spores (urediniospores), which later in the season will turn dark brown (teliospores). Leaf rust spores are darker orange, while stem rust spores are brick-red in colour. Both leaf rust and stem rust produce black teliospores later in the disease cycle.

For more information on cereal rusts, visit:
www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/prm4515
www.gov.mb.ca/agriculture//crops/diseases/fac13s00.html
www.ag.ndsu.edu/pubs/plantsci/smgrains/pp1361.pdf
www.ars.usda.gov/Main/docs.htm?docid=9854
www.mtagalert.org/alertDocs/Stem%20Rust%20Man%20MT.pdf
www.mtagalert.org/alertDocs/Rust%20Diseases%20MT.pdf

What is the Difference Between a Pustule and a Lesion?
You may hear pathologists use the terms "pustule" and "lesion" when describing disease symptoms. Both reduce the photosynthetic (green) area of the plant, reducing yield, but they are not the same thing. See Figure 5 to compare pustules and lesions. ✿

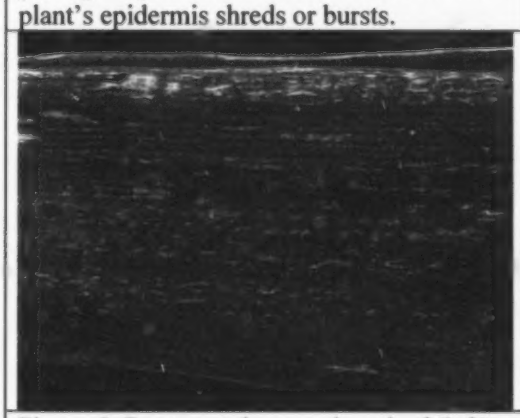
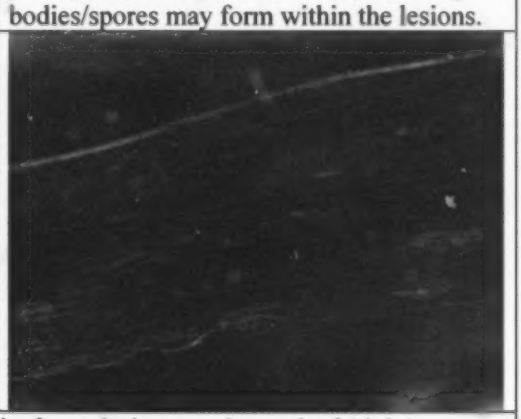
Pustules are raised spots (blisters), caused by production of the often colourful pathogen spores that are released when the plant's epidermis shreds or bursts.	Lesions are discoloured spots (wounds), caused by the plant's reaction to the pathogen (chlorosis or necrosis). Fruiting bodies/spores may form within the lesions.
	

Figure 5. Rust pustules on wheat leaf (left) vs leaf spot lesions on durum leaf (right). Source: Cereal and Flax Pathology, U of S (left) and Saskatchewan Agriculture (right).

Insect Update

By Scott Hartley, PAg, Provincial Specialist, Insect and Vertebrate Pests

As indicated in the 2011 Wheat Midge Forecast, there were areas of moderate to high risk from wheat midge throughout the Dark Brown and Black soil zones in Saskatchewan. Although temperatures were below normal for much of the spring this year, the accumulated degree days suggest that the midge will be begin to emerge over the next week. The highest accumulation of heat appears to be in the northwest (North Battleford / Lloydminster area), a broad area extending through the central region from the Sand Hills in the southwest through Saskatoon to Prince Albert, the Moose Jaw/Regina area and an area in the extreme southeast. However, the higher temperatures experienced over the past week throughout most of the province will accelerate insect development and emergence. To view estimated degree day accumulation, visit the WeatherFarm site that uses meteorological data collected from WeatherBug sites http://professionalportal.weatherbug.com/Login.aspx.

Growers are urged to monitor individual wheat fields when the midge are emerging and wheat crops are in a susceptible stage – **when the wheat head becomes visible as the boot splits, until about mid-flowering (anthesis)**. Keep in mind that the first midges to emerge are the males. The females will start to emerge a few days later. Temperature and wind conditions will significantly influence egg-laying by the adult female midge. Midges are very susceptible to wind and, when the wind speed is higher, they will tend to stay in protected areas lower in the crop. Regular monitoring on multiple nights is important to be aware of actual field populations. Knowing whether wheat midge numbers are on the rise, stable or decreasing will allow for optimal timing of insecticide application or help determine if control is necessary.

Economic thresholds – Control of wheat midge in conventional spring wheat crops is recommended as follows:
Yield - one midge per four or five wheat heads
Grade - one midge per eight to 10 wheat heads

Research has shown that insecticides containing the active ingredient chlorpyrifos provide the best control, and may be applied up to four days after reaching the economic threshold. Insecticides containing the active ingredient dimethoate are also registered for control of wheat midge, but should be applied as soon as the economic threshold is reached. Only one application of chlorpyrifos is permitted annually, while dimethoate may be applied twice, if necessary.

Bertha armyworm

Bertha armyworm moths started to emerge in late June. The risk from Bertha armyworms in 2011 is expected to be low. The number of moths reported by co-operators so far is also low, with the expected peak of emergence about the middle of July. Data will be mapped and posted on the Ministry of Agriculture website.

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Insect Update
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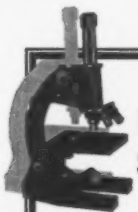
Cutworms
Reports of cutworm problems have tapered off with the completion of the larval stage of their life cycle. Control efforts with insecticides at this time will have little effect on the cutworm population; however, there are some management considerations that may help prevent problems for 2012. Keep in mind that when the cutworm adult moths appear later in summer, they have preferences for egg-laying. Soil disturbance in August and early September can promote infestations the following year. Fields with green growth will also be attractive for egg-laying. Effective weed control (chemical or mechanical) and leaving fields undisturbed in August and September can help to reduce cutworm infestations the following year.

Diamondback Moth
Diamondback moths are usually the most problematic if they arrive early (April/May) and complete multiple generations. The diamondback moth traps in Saskatchewan have picked up low numbers overall in 2011. The highest cumulative counts have been in traps in the Rosetown and Swift Current areas.

Cabbage Seedpod Weevil
Cabbage seedpod weevils will be migrating from over-wintering sites into field crops. Canola is the primary host for the insect but mustard varieties (except for yellow mustard) can be affected by weevil feeding. There have been recent reports of cabbage seedpod weevils in canola in southern Alberta but not yet at economic levels. With current canola prices, the recommended economic threshold (using a sweep net) is an average of two weevils per sweep. Initially, populations will be higher near field edges as the weevils migrate into the field and full field insecticide application may not be required. However, the best timing for insecticide application is when the crop is in the 10 to 20 per cent flowering stage. Application too early could result in reduced control as other weevils emerge from off field sites and invade the crop. Application later in the day will minimize the negative effects on pollinators and beneficial insects that act as bio-control for the cabbage seedpod weevil.

Other Insects
Red turnip beetles were reported in the southeast. Although not extensive or widespread, the adult beetles and the larvae can cause significant damage. Control is usually not warranted on entire fields as the damage is patchy. ✿



For information about submitting samples to Saskatchewan Agriculture's Crop Protection Lab go to:
www.agriculture.gov.sk.ca/Crop_Protection_Lab;

Bait Station Removal Notice

By Rich Wilkins, Provincial Specialist, Pesticide Regulatory

Saskatchewan Ministry of Agriculture

NOTICE

PROGRAMS AND SERVICES

Attention producers!

Don't forget to remove all bait stations used for control of gophers

By now, all bait stations should be removed. At this time of year, Richardson's Ground Squirrels (gophers) find more attractive green growth for food, making rodenticides less effective. In addition, gophers are less active above ground as they begin to enter a hibernation phase in their life cycle.

Bait stations in the field for an extended period of time increases the potential for accidental exposure to non-target animals – both wild and domestic – including deer, antelope, birds, livestock and even pets.

It's also important to keep in mind that the misuse of toxic baits could jeopardize the availability of rodenticides in the future.

For more information, contact:

- Scott Hartley, Provincial Insect and Vertebrate Pest Specialist, Saskatchewan Ministry of Agriculture at (306) 787-4669; or
- Richard Wilkins, Provincial Pesticide Regulatory Specialist, Saskatchewan Ministry of Agricuture at (306) 787-5207.

The ***Crop Production News*** is a publication of the Crops Branch, Saskatchewan Ministry of Agriculture.
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Saskatchewan Sunflower Committee
Tour & Meeting

Wednesday, July 27, 2011

Agriculture and Agri-Food Research Farm, Indian Head

11:00 a.m. Saskatchewan Sunflower Committee Meeting

12:00 p.m. Lunch

1:00 p.m. Plot Tour including:

- Evaluation of Early Sunflower Hybrids for Saskatchewan
- Hybrid Sunflower Response to Nitrogen
- Test Crosses of Early Maturity Sunflowers from Brent Hulke's North Dakota Breeding Program (USDA)
- Rates of Authority (sulfentrazone) on Sunflower

For more information or to confirm attendance (by July 22 for meal planning) contact:

Elaine Moats, Saskatchewan Agriculture 306-848-2856
Bill May, Agriculture and Agri-Food Canada 306-695-5225

Agriculture and Agri-Food Canada | Agriculture et Agroalimentaire Canada

Saskatchewan Ministry of Agriculture

Growing Forward